



CARIBBEAN
ACTUARIAL
ASSOCIATION



IAIN DEWSON, PARTNER, THE FINANCE BUSINESS PARTNER

DATA VISUALIZATION

This presentation has been prepared for the 2023 Caribbean Actuarial Association (CAA) Conference.

The CAA wishes it to be understood that opinions put forward herein are not necessarily those of the CAA and the CAA takes no responsibility for those opinions.



www.thefinancebusinesspartner.com

iaian@thefinancebusinesspartner.com

+44 7914 354040

DATA VISUALIZATION IS NOT ABOUT FANCY VISUALS...

INTERESTING

INFORMATIVE

**HOW MIGHT YOU
DESCRIBE YOUR
ACTUARIAL REPORTS?**

**TABLES OF
NUMBERS**

**DATA
VISUALIZATIONS**

CHARTS

BUSY

COMPLICATED

**HOW MIGHT YOUR NON-
ACTUARIAL AUDIENCE
DESCRIBE YOUR
REPORTS?**

**LOTS OF
TABLES**

**LOTS OF
CHARTS**

HARD TO USE

ENGAGING

ACTION ORIENTED

FUN

**HOW MIGHT YOU LIKE
YOUR REPORTS TO BE
DESCRIBED IN FUTURE?**

SIMPLE

EASY TO

UNDERSTAND

CLEAR

CONCISE

**SO WHAT CAN WE
DO ABOUT IT?**

LET'S START WITH A TYPICAL ACTUARIAL REPORT OR PRESENTATION...

2023 Actuarial Valuation Update

2023 Actuarial Valuation Update

Overall Funding Position

	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

2023 Actuarial Valuation Update

Overall Funding Position

	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

Commentary

- The scheduled body and subsumption funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing orphaned funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in discount rate relative to inflation.

2023 Actuarial Valuation Update

Overall Funding Position

	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

Commentary

- The scheduled body and **subsumption** funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing **orphaned** funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in **discount rate** relative to inflation.

2023 Actuarial Valuation Update

Overall Funding Position

	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

Commentary

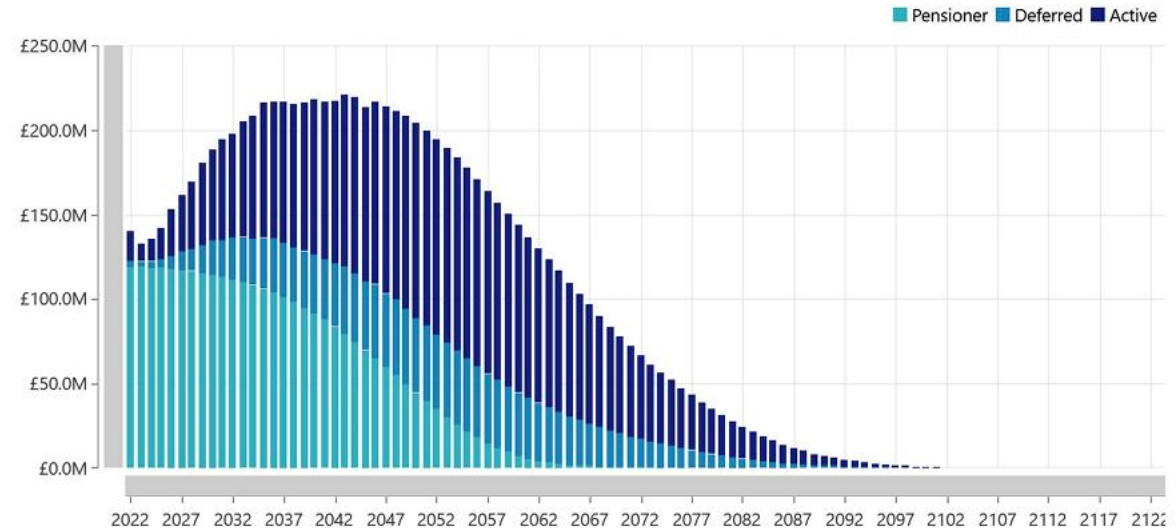
- The scheduled body and subsumption funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing orphaned funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in discount rate relative to inflation.

2023 Actuarial Valuation Update

Overall Funding Position

	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

Cashflows



Commentary

- The scheduled body and subsumption funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing orphaned funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in discount rate relative to inflation.

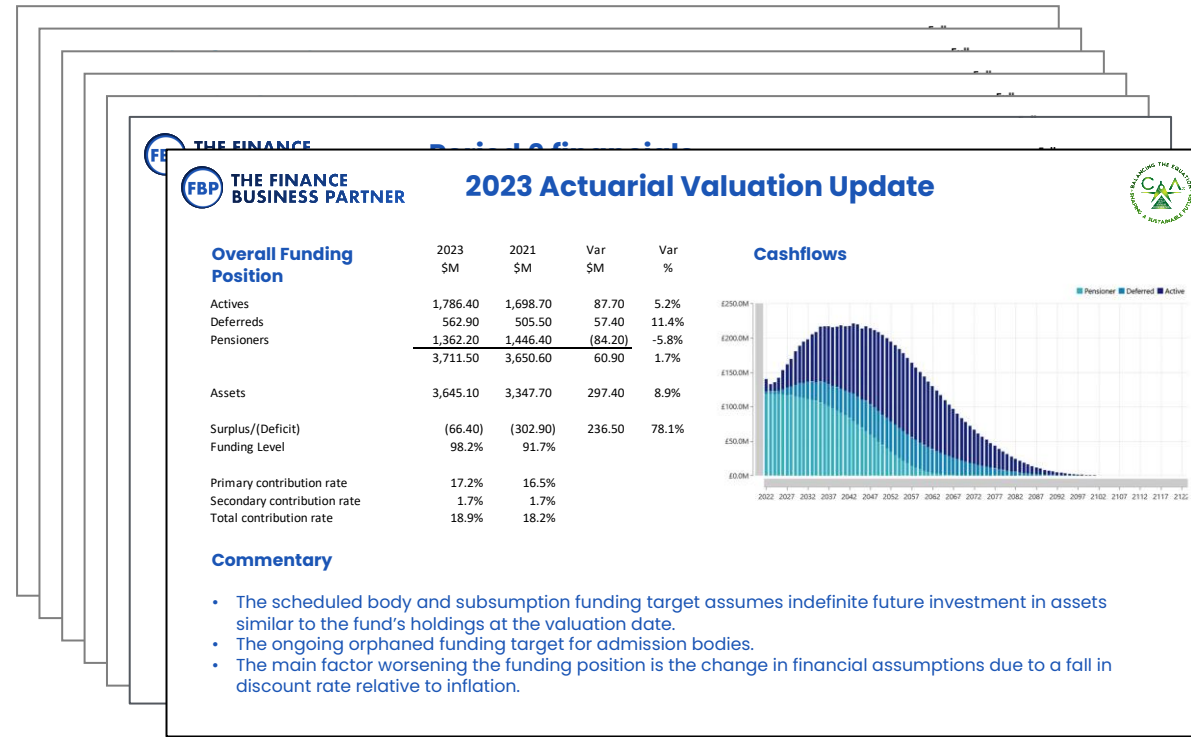


THE FINANCE
BUSINESS PARTNER



“Err... I have a question...”

“Huh?”



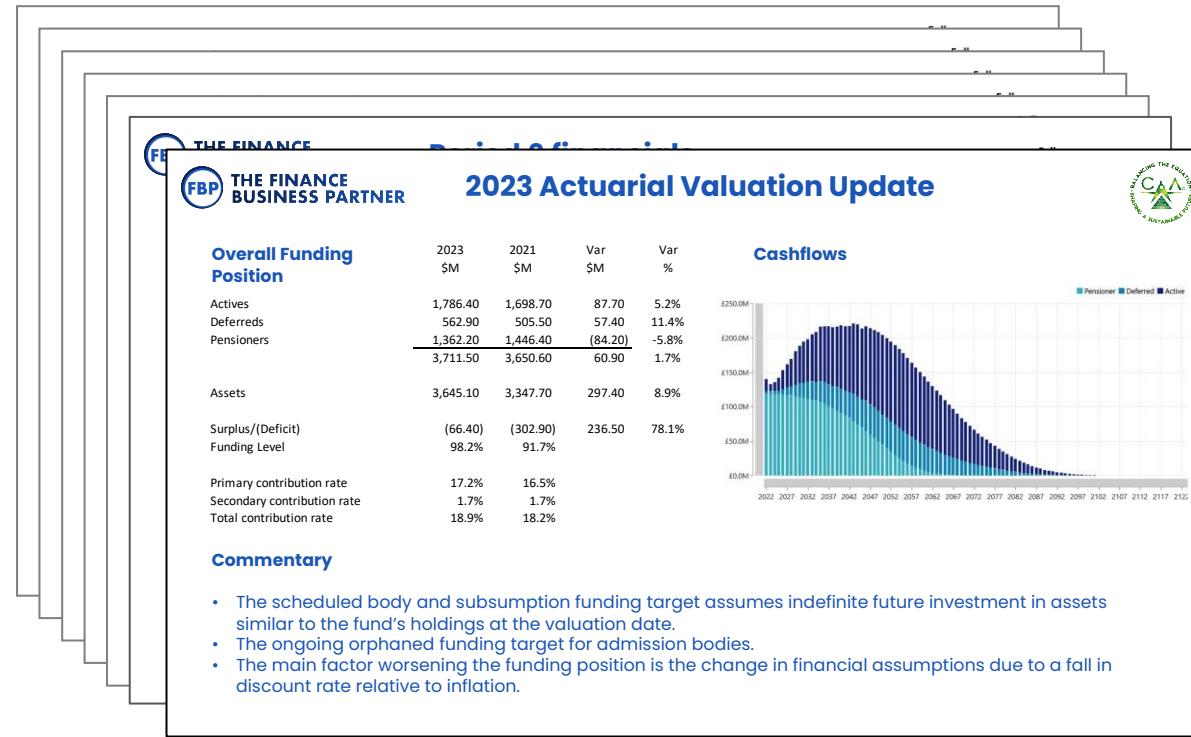
GREAT FOR...

REFERENCE

CONTROLS

COMPLETENESS

ACCURACY



GREAT FOR...

REFERENCE

CONTROLS

COMPLETENESS

ACCURACY

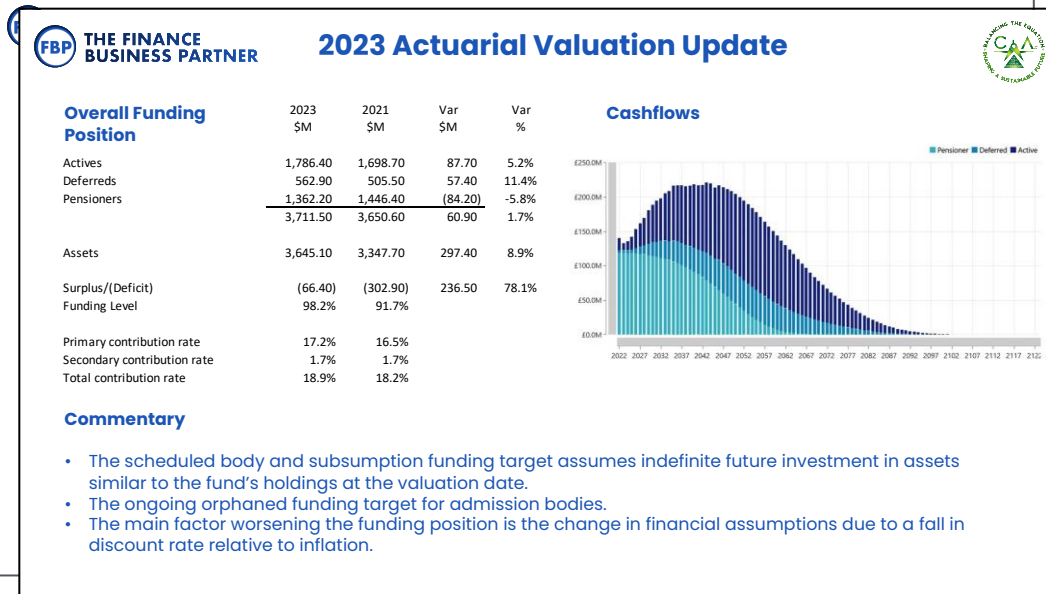
TERRIBLE FOR...

COMMUNICATING KEY MESSAGES

ENGAGING YOUR AUDIENCE

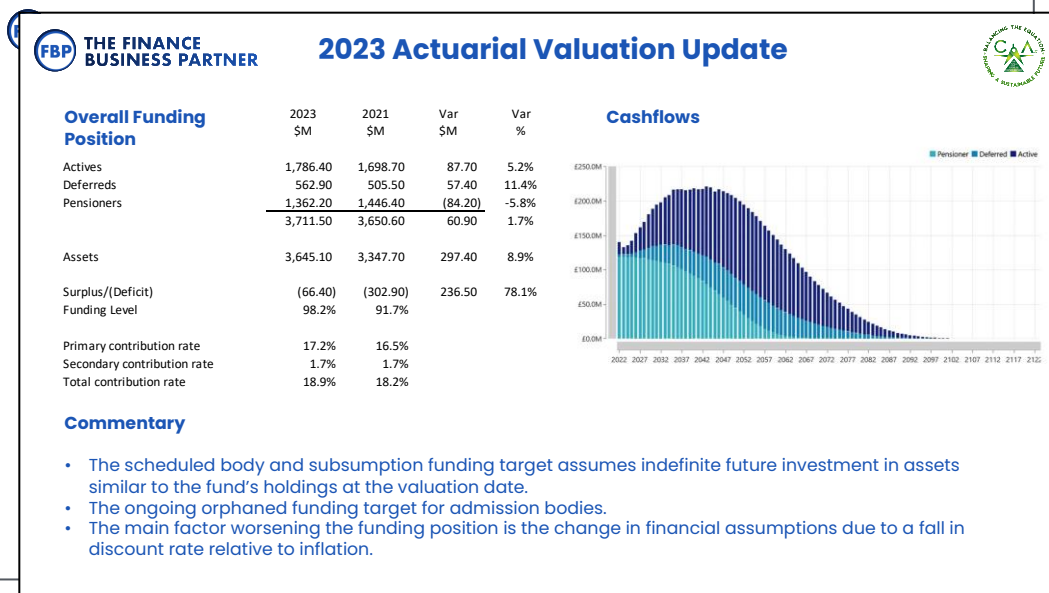
INFLUENCING DECISIONS

WHO DECIDES WHAT THE KEY MESSAGES ARE?



WHO DECIDES WHAT THE KEY MESSAGES ARE?

NOT YOU



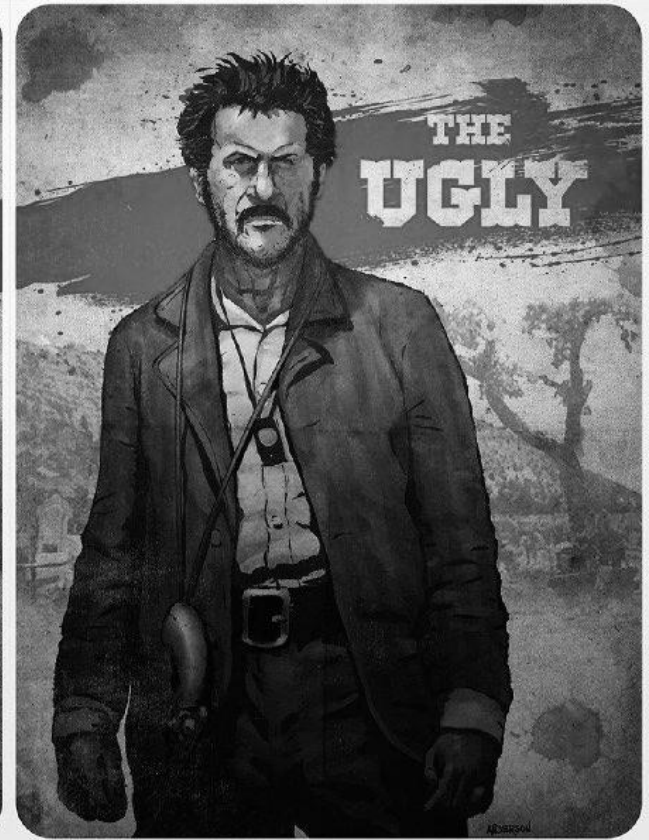
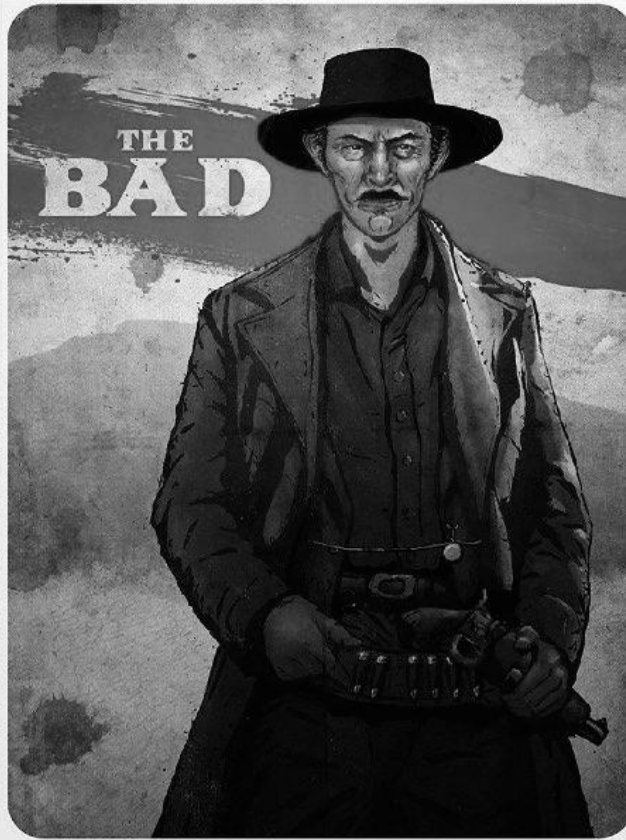
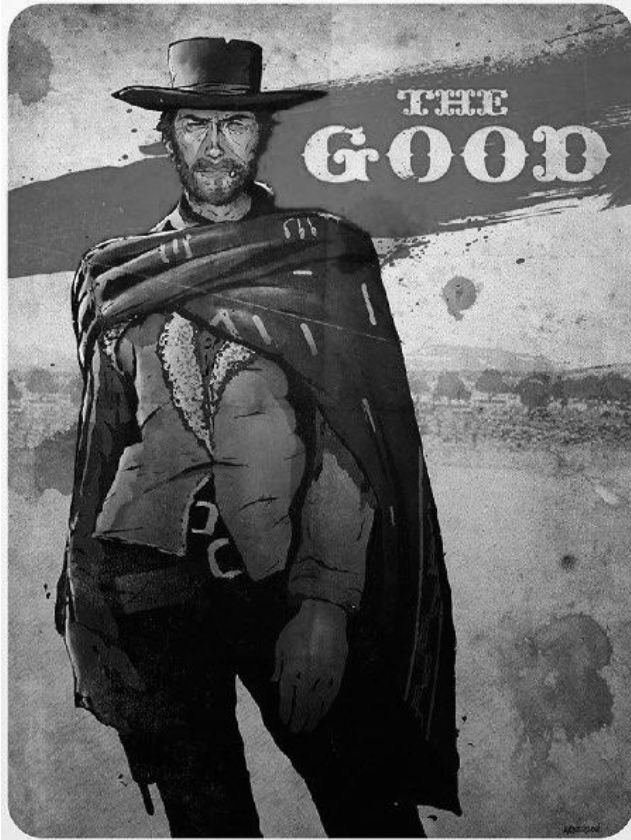


What can we do about it?

THE **FIRST** TOOL FOR VISUALIZING DATA







*A Mars a day helps you
work, rest and play.*



JUST DO IT.

In an Emergency:

999

Yes We Can!



Obama

Yes We Can!



Bob the Builder

Get Brexit Done



Johnson



Justice, goodwill, brotherhood



Martin Luther King

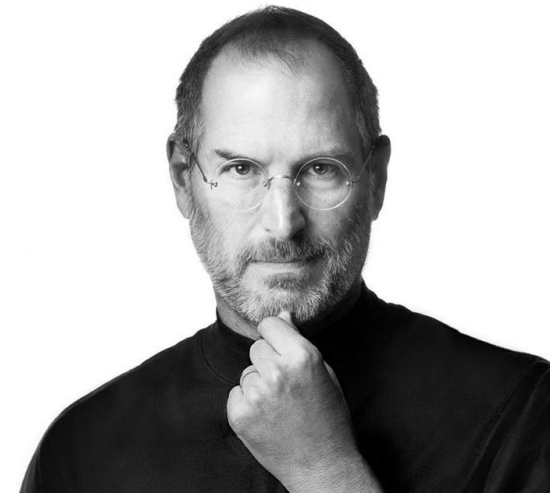
I came, I saw, I conquered



Julius Caesar

iPad 2

Thinner. Lighter. Faster.




THE **SECOND** TOOL FOR DATA VIZUALIZATION








TOO DETAILED



THE FINANCE

BUSINESS PARTNER

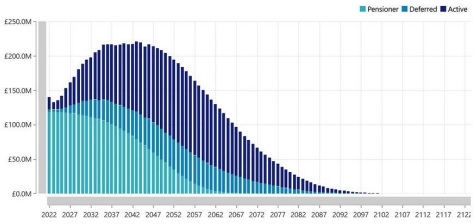
2023 Actuarial Valuation Update



Overall Funding Position

	2023	2021	Var	Var
	\$M	\$M	\$M	%
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

Cashflows



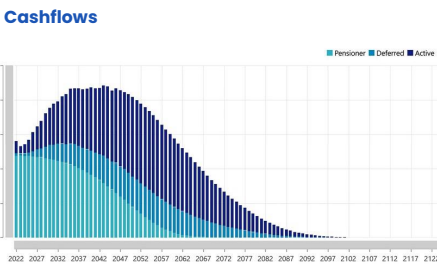
Commentary

- The scheduled body and subsumption funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing orphaned funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in discount rate relative to inflation.

TOO HIGH-LEVEL

TOO DETAILED

Overall Funding Position	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		



Commentary

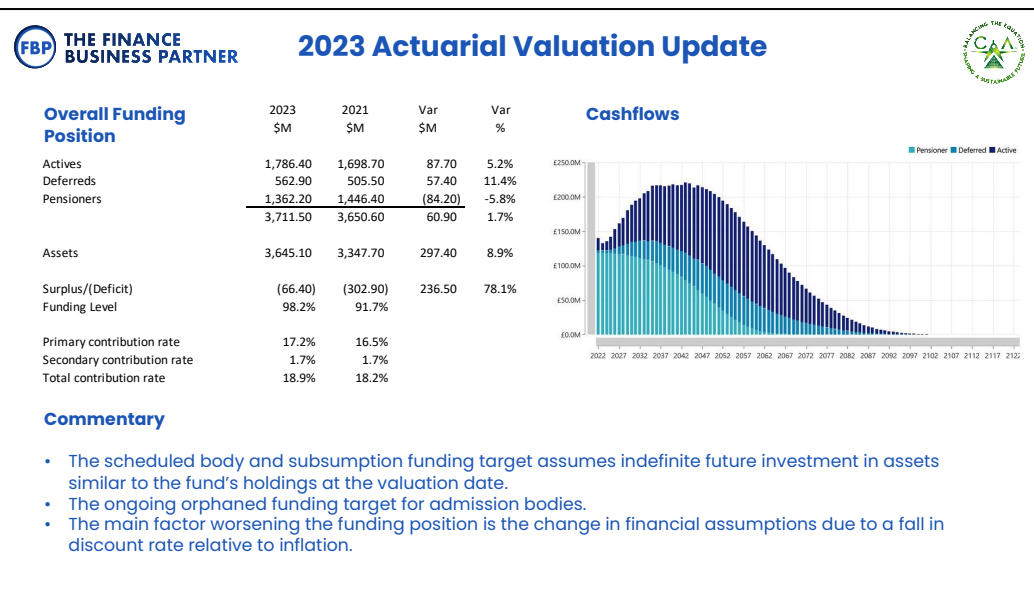
- The scheduled body and subsumption funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing orphaned funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in discount rate relative to inflation.

JUST
RIGHT



TOO HIGH-LEVEL

TOO DETAILED



1Q at a glance

The key numbers from our first
quarter 2022 results

For the latest updates on projects and progress, see
[this quarter's highlights from bp](#)

Results at a glance →

\$20.4bn

reported loss

\$6.2bn

underlying replacement cost profit

\$8.2bn

operating cash flow including \$4.1bn working capital build¹

(1) Adjusted for inventory holding gains and fair value accounting effects

\$27.5bn

net debt

5.46cents

per ordinary share dividend for 1Q22

\$2.5bn

share buyback to be executed prior to announcing 2Q22 results

Group income

£6.5bn

Group return on
tangible
equity (RoTE)

11.5%

Group profit
before
tax (PBT)

£2.2bn

Common equity
tier 1
(CET1) ratio

13.8%

Cost: income
ratio

63%

Earnings per
share

8.4p

Fit for growth



Our comprehensive cost
efficiency programme

“Fit for Growth” is a comprehensive cost efficiency programme designed to drive operating leverage and margin expansion across the Group.

Impact over three years

80%

of procurement centralised

€340m

saved through network design
standardisation

€240m

Group support function savings
through zero based budgeting



Read more

Product Sales

Changes at constant exchange rates

2021	\$36.5bn	+38%
2020	\$25.89bn	+11%
2019	\$23.6bn	+15%

Core Earnings per Share

Changes at constant exchange rates

2021	\$5.29	+37%
2020	\$4.02	+18%
2019	\$3.50	-%

Q1 Growth

Underlying Sales Growth

7.3%

-1%

Underlying Volume Growth

Pricing Growth



Competitive Growth

58%

% Business Winning MAT¹

¹Moving Annual Total / Last 52 weeks

30% of all cars

sold in the U.S. in 2006



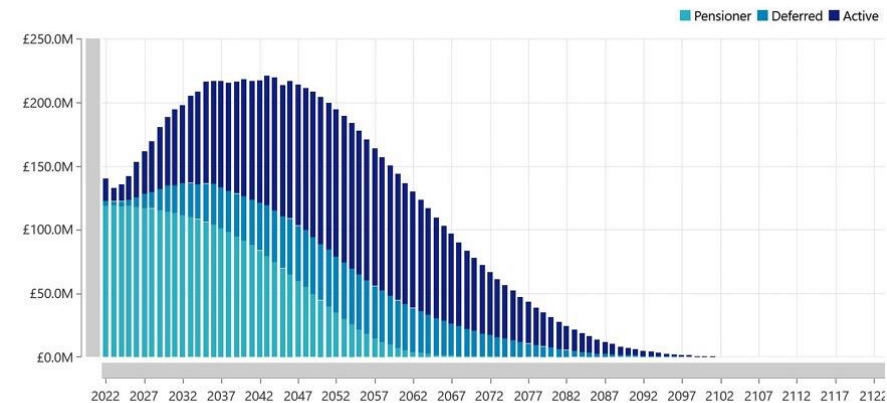


2023 Actuarial Valuation Update

Overall Funding Position

	2023 \$M	2021 \$M	Var \$M	Var %
Actives	1,786.40	1,698.70	87.70	5.2%
Deferreds	562.90	505.50	57.40	11.4%
Pensioners	1,362.20	1,446.40	(84.20)	-5.8%
	3,711.50	3,650.60	60.90	1.7%
Assets	3,645.10	3,347.70	297.40	8.9%
Surplus/(Deficit)	(66.40)	(302.90)	236.50	78.1%
Funding Level	98.2%	91.7%		
Primary contribution rate	17.2%	16.5%		
Secondary contribution rate	1.7%	1.7%		
Total contribution rate	18.9%	18.2%		

Cashflows



Commentary

- The scheduled body and subsumption funding target assumes indefinite future investment in assets similar to the fund's holdings at the valuation date.
- The ongoing orphaned funding target for admission bodies.
- The main factor worsening the funding position is the change in financial assumptions due to a fall in discount rate relative to inflation.

THE **THIRD** TOOL FOR DATA VISUALIZATION

THE POWER DASHBOARD



**THE FINANCE
BUSINESS PARTNER**

HOW CAN WE CONTINUE TO FUND OUR PENSION LIABILITIES?





+\$237M DEFICIT
IMPROVEMENT

2021 -\$303M 2023 -\$66M

Due to increase in value of **assets under
management**



+\$237M DEFICIT
IMPROVEMENT

2021 -\$303M 2023 -\$66M

Due to increase in value of **assets under management**

+\$297M VALUE OF
ASSETS

2021 \$3.3BN 2023 \$3.6BN

Due to new **transfer of new portfolio**



+\$237M DEFICIT
IMPROVEMENT

2021 -\$303M 2023 -\$66M
Due to increase in value of **assets under management**

+\$297M VALUE OF
ASSETS

2021 \$3.3BN 2023 \$3.6BN
Due to new **transfer of new portfolio**

98.2% FUNDING LEVEL

2021 91.7%

Due to increase in value of **assets**
under management and
contributions.



+\$237M DEFICIT
IMPROVEMENT

2021 -\$303M 2023 -\$66M

Due to increase in value of **assets under management**

+\$297M VALUE OF
ASSETS

2021 \$3.3BN 2023 \$3.6BN

Due to new **transfer of new portfolio**

98.2% FUNDING LEVEL

2021 91.7%

Due to increase in value of **assets**
under management and
contributions.

QUESTIONS

How can we turn the deficit into a surplus?

How can we continue to increase the asset valuation?

Could we achieve 100% funding level?



THE RULE OF 3



THE RULE OF 3

AND

THE SIMPLE TEXT TECHNIQUE



ENGAGING

ACTION ORIENTED

FUN

**AND GET REPORTS
DESCRIBED LIKE THIS...**

SIMPLE

CLEAR

CONCISE

**EASY TO
UNDERSTAND**

QUESTIONS?



**THE FINANCE
BUSINESS PARTNER**

www.thefinancebusinesspartner.com

iaian@thefinancebusinesspartner.com

07914 354040